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EXAMINER
CHANKONG, DOHM

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 October 2010*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

This final rejection is in response to Applicant's amendment filed 10/21/2010. Applicant

amends claims 1, 8, and 15, and adds claim 24. Accordingly, Applicant presents claims 1-24 for

further examination.

I.   **RESPONSE TO ARGUMENTS**

Applicant's arguments with respect to claims 1-24 have been considered but are moot in

view of the new ground(s) of rejection.

II.   **CLAIM REJECTIONS – 35 U.S.C. § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
subject matter which the applicant regards as his invention.

**A.   Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being
        indefinite for failing to particularly point out and distinctly claim the subject
        matter which applicant regards as the invention.**

Claim 24 is rejected because it contains confusing claim language. The language

"wherein the port module reconnects the remote application to the data source without

initialization by the connection manager" is confusing because it is not clear to what claim

element the "initialization" is referring. Specifically, as the claim is currently written, the

interpretation is that the connection manager does not initialize some other claim element but it

is not clear which.

After reading Applicant's specification for guidance, the examiner will interpret the

limitation as "reconnecting the remote application the data source without reinitializing the

connection manager." If this is the intended subject matter of the claim, then the claim should be

amended to more clearly claim the invention. If this is not the intended subject matter, then the

claim language should be clarified because the current language is not clear.

III.   CLAIM REJECTIONS - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness
      or nonobviousness.

A.   **Claims 1-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over
      Polizzi et al (US 2002/0023158, "Polizzi," hereafter) in view of Guenthner et
      al, U.S Patent No. 5.134.588 ["Guenthner"], in further view of Ohran et al,
      U.S. Patent No. 5.812.748 ["Ohran"], in further view of Rizvi et al., U.S.
      Patent No. 6490610 ["Rizvi"].**

All citations are to Polizzi unless otherwise noted.

Claims 1, 8, and 15

Polizzi as modified by Guenthner, Ohran, and Rizvi discloses a method, apparatus and

program product (hereinafter a "system") comprising:

providing at least one interface module to interface with a remote application (105, fig.1);

providing port module to interface between interface module and data source (agent, 130, fig. 1);

providing a connection manager to facilitate between the interface module and port module (service broker 125 fig. 1; ¶ 21);

detecting unavailability of the data source in response to an initial request for the data source by the remote application [Guenthner, column 9 «lines 18-20];

dynamically detecting availability of the data source in response to a subsequent request for the data source [Guenthner, column 9 «lines 16-35»]; and

reconnecting the data source to the remote application in response to the subsequent request [Guenthner, column 9 «lines 16-35»],

wherein the at least one port module determines a last status of the data source and reconnects the remote application to the data source based on the determination of the last status of the data source [Guenthner, column 9 «lines 16-35» and Ohran, column 7 «lines 25-43»] by directly communicating with the remote application and bypassing the connection manager [Rizvi, Fig. 2: disclosing a names server (i.e., connection manager), a client interface module (i.e., port module), a database server (i.e., data source) and a user (i.e., remote application), using the names server to connect to the database | column 5 «lines 12-30 and 43-52»: reconnecting the user to the database after a failure and bypassing the names server by selecting the same database or selecting from a pool of databases].

Polizzi does not explicitly disclose (1) detecting unavailability and availability of a data source in response to a request and reconnecting to the data source when it becomes available;

(2) a port module determining a last status of the data source and reconnects the remote

application to the data source based on the determination of the last status of the data source; and

(3) directly communicating with the remote application and bypassing the connection manager.

However, these features were well known in the art at the time of Applicant's invention as

evidenced by Guenthner, Ohran, and Rizvi.

      1.   <u>Guenthner discloses the steps of detecting the availability of a data
                response and reconnecting to the data source when it becomes available.</u>

      Guenthner discloses detecting unavailability of a data source in response to a request for

the data source [column 9 «lines 18-20»], dynamically detecting availability of the data source

and reconnecting to the data source in response to a subsequent request [column 9 «lines 16-

35»].

      It would have been obvious to one of ordinary skill in the art at the time of the invention

was made to adapt the known technique as suggested by Guenthner with Polizzi for a client to

detect the unavailability of a server but to be able to dynamically reconnect to the server when it

is available again. One would have been motivated to provide such a combination to enhance a

client's experience by ensuring availability of data sources [column 1 «lines 65-67»].

      2.   <u>Guenthner and Ohran disclose the step of a port module determining a last
                status of the data source and reconnects the remote application to the data
                source based on the determination of the last status of the data source.</u>

      Guenthner discloses a client determining a last status of the data source and reconnects

the remote application to the data source based on the determination of the last status of the data

source [column 9 «lines 16-35»: the client attempts to reconnect to a server if the server is

marked as "Bad" in the list] but does not disclose that a port module performs this step.

Ohran discloses a port module that performs the step of reconnecting to a data source

(e.g., a server) based on a determination of the status of the data source [column 7 «lines 25-43»:

disclosing a loadable module that reconnects to a server if the server is determined as failed].

Ohran's loadable module reads on Applicant's port module.

It would have been obvious to one of ordinary skill in the art to have modified Polizzi and

Guenthner's system to have Polizzi's port module perform the determination step as taught by

Ohran. Such a modification to Polizzi's system is merely an example of simple substitution of

one known feature (Ohran's loadable module performing the reconnect step) for another

(Polizzi's port module) to obtain predictable results (Polizzi's port module modified to perform

the reconnect feature. See MPEP § 2143.

        3.   <u>Rizvi discloses a port module that reconnects a remote application the data
source by directly communicating with the remote application and
bypassing the connection manager</u>.

As noted in the foregoing mapping, Rizvi discloses a client interface module (i.e., port

module) that reconnects the user (i.e., remote application) to the database server (i.e., data

source) by selecting the database server from a pool and not getting the address from the names

server (i.e., connection manager).

It would have been obvious to one of ordinary skill in the art to have modified Polizzi and

Guenthner's system to have included Rizvi's functionality of bypassing the connection manager

upon reconnection of the remote application to the data source. Such a modification to Polizzi's

system is an example of using a known technique (Rizvi's client module functionality to bypass

the names server) to improve similar systems (Polizzi's port module) in the same way. See

MPEP § 2143.

Claims 2-5, 9-12, 16, and 17

Polizzi-Guenthner-Ohran-Rizvi discloses, detecting unavailability is accomplish by software module executed in a computer. Polizzi-Guenthner-Ohran-Rizvi does not explicitly call its software module as being specified by the claims language. However, applying the detection capability to any software module regardless of its nomenclature does not produce unexpected result and is an obvious variation of design choice.

That is, having either the port module or the connection manager perform the dynamic detection function leads to the same expected results which is evidence of obviousness. MPEP §716.02(II). Conversely, Appellant has not identified any unexpected result that would occur if the detection function is performed by the connection manager or the port module. MPEP §716.02.

Claims 6, 7, 13, 14, 18, and 19

Polizzi-Guenthner-Ohran-Rizvi discloses re-establishing a connection between the port module and the data source independently from initialization of the connection manager, i.e., without re-initializing the connection manager [see Guenthner, Figure 8 | column 9 «lines 32-35» : reconnecting independent of the nameserver].

Claim 23

Polizzi-Guenthner-Ohran-Rizvi discloses the port module sending an error message to the interface module indicating the unavailability of the data source [Guenthner, Fig. 6 «item 112»]. Error messages were well known in the art at the time of Applicant's invention.

Claim 24

Polizzi as modified by Guenthner, Ohran, and Rizvi discloses the port module reconnects

the remote application to the data source without initialization by the connection manager [Rizvi,

column 5 «lines 12-30 and 43-52»: bypassing the names server is analogous to not reinitializing

the names server].

**B.   Claims 20-22 are rejected under 35 U.S.C § 103(a) as being unpatentable
         over Polizzi, Guenthner, Ohran, and Rizvi, in further view of Brendel et al,
         U.S. Patent No. 5.774.660 ["Brendel"].**

Polizzi does not expressly disclose connecting directly the interface module and the port

module for communicating independently from the connection manager in subsequent

communications.

Brendel discloses a system whereby a load balancer is responsible for facilitating

between a user and a remote application such as a server [Figure 6]. After the connection has

been facilitated, the user and the remote application may connect directly with one another

allowing subsequent communications from the server to be sent to the user such that the load

balancer is bypassed [column 9 «lines 18-21»].

It would have been obvious to one ordinary skill in the art to modify Polizzi's system to

incorporate Brendel's teachings; that is, to enable direct communications between Polizzi's

network interface and agents, bypassing the service broker, to reduce the amount of bandwidth

that must flow through the broker [see Brendel, column 9 «lines 60-64»]. Such a modification in

Polizzi's system would provide substantial improvement in Polizzi's service broker, as evidenced

by the reduction in workload of Brendel's load balancer. Polizzi's service broker and Brendel's

load balancer are analogous as they both responsible for establishing connections between user

and remote applications [see Polizzi, 0021 & Brendel, column 6 «lines 25-26»].

IV.   CONCLUSION

Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to DOHM CHANKONG whose telephone number is (571)272-

3942. The examiner can normally be reached on Monday to Friday [10 am - 6 pm].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Thu Nguyen can be reached on (571)272-6967. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

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like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DOHM CHANKONG/
Primary Examiner, Art Unit 2452